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AUTHOR Short, Craig; Christal, Melodie E.

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ABSTRACT

The use of the floppy disk as an alternative mode for delivering Information Services reports was evaluated for fiscal year 1985 by the National Center for Higher Education Management Systems (NCHEMS). A 5.25 inch, 8/9 sector, 40 track ASCII floppy disk used under PC-DOS on the IBM PC and IBM PC compatible hardware was tested. Tabular data but not graphics can be provided using this medium. The information can be provided as either a simple data file or in electronic spreadsheet format (such as Lotus 1-2-3). The NCHEMS HP3000 Series III computer is used to process data from the NCHEMS higher education holdings and generate the reports. In pilot testing the floppy disk with several clients, NCHEMS provided the following reports: educational and general revenue by source per full-time equivalent (FTE) students, and educational and general expenditures by function per FTE student. A letter from a client is appended that notes the success of the floppy disk as a mode of delivery. The client received finance reports on floppy disk in Lotus 1-2-3 format, and the data were trouble free and immediately usable. (SW)

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An Evaluation of Alternative Delivery Modes for Information Services

Craig Short
Melodie E. Christal

November 30, 1985

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National Center for Higher Education Management Systems

Introduction

Over the past five years NCHEMS Information Services has provided the higher education community access to higher education data via both standard and custom reports. In FY85 there were 104 requests for services for a total of 972 separate, standard reports. Of these, 912 were tabular reports and 67 were graphics reports.

At present, the primary medium for providing Information Services reports to the client is the standard printed page. On rare occasion, the data have been provided on magnetic tape. In recent years, there has been an increasing number of requests for NCHEMS to provide alternative methods of providing data and information. This is due in part to the recent, rapid developments in computing and telecommunications. Many users currently have access to on-line systems via the commercial networks such as Source, Med-line, Dialcom, and so on. There is also an increasing desire for more responsive turn-around times in receiving the data--currently NCHEMS guarantees delivery within seven days--and the need for the user to manipulate and/or format data to meet his own specifications.

In FY84, NCHEMS, as part of work performed pursuant to contract number 400-83-0009 with the National Institute of Education, conducted two studies on alternative delivery modes to determine what methods of providing data and information are available and to determine which methods might be most reasonable for using in NCHEMS Information Services. The deliverables were:

P4-3 - "Technical Impact of Offering NCHEMS Information Services Reports via Alternative Delivery Modes"

P5-3 "A Study of Alternative Delivery Modes for Federal Data"

The studies indicated that there are four data storage media for transmitting Information Services reports to clients that are considered potentially feasible by NCHEMS: printed report; magnetic tape; floppy disk; and mainframe computer disk. As indicated previously, the printed report is now most frequently utilized; the magnetic tape is occasionally used. Of the remaining two types of media, it was determined that the computer-to-computer was not possible as NCHEMS does not have the hardware or software capability to transmit Information Services reports; only the floppy disk was possible, given NCHEMS current computer hardware and software. In addition, the proliferation of microcomputers and the popularity of Lotus 1-2-3 was a consideration.

Floppy Disk

The alternative delivery mode of choice for testing in FY85 is the floppy disk, specifically the 5-1/4 inch, 8/9 sector, 40 track ASCII floppy disk used under PC-DOS on the IBM PC and IBM PC compatible hardware. The information which can be provided using this medium is report or tabular data (character data) only. Graphics reports cannot be provided on floppy disk because of the multiplicity of graphics output media combined with the unique manner of output of graphics information required for each individual graphics device.

By utilizing the floppy disk, information can be provided as either a simple data file or in electronic spreadsheet format (such as Lotus 1-2-3). The steps required to provide a simple data file are straightforward and utilize the existing data generation procedures for the Information Services reports.

The NCHEMS HP3000 Series III computer is used to process data from the NCHEMS higher education data holdings and generate the reports. Instead of directing the report output to the system printer the report is directed to a disk file. This disk file is in "flat file" format, that is, a sequential file with no special characters. "Flat files" can be readily transmitted between computers. The communications link between one of the NCHEMS IBM PCs and the HP3000 is activated and the file is transmitted to the IBM PC and stored on a formatted PC-DOS floppy disk. It is then necessary to utilize PC software to perform a visual inspection of the stored file in order to make sure that no data are lost as a result of line noise or other problems with the communications link. Once the floppy disk file has been verified to be error free, it is delivered to the customer.

Pilot Test

NCHEMS pilot tested the floppy disk with several of its clients. Clients were provided with the following reports:

FIN-1: Educational and General Revenues by Source per FTE Student

FIN-2: Educational and General Expenditures by Function per FTE Student

The enclosed letter (Appendix A), a representative sample, is a testimony to the success of the floppy disk as an alternative delivery mode. This client did receive the finance reports on floppy disk in Lotus 1-2-3 format, and this letter indicates that the data were trouble free and immediately usable.

Appendix A

THE THIRD CENTURY PROJECT
POSTSECONDARY EDUCATION IN NORTH CAROLINA
P.O. BOX 18808
ASHEVILLE, NORTH CAROLINA 28814-0808

FUNDED BY
Z. SMITH REYNOLDS FOUNDATION

TELEPHONE
(704) 254-5858

August 12, 1985

Mr. Craig Short, Coordinator
Information Services
NCHEMS
P. O. Drawer P
Boulder, Colorado 80302

Dear Craig:

Forgive me, please, for my unconscionable delay in reporting on the floppy diskette materials you sent me early in July. They work beautifully. Each of us who works regualrly on data for the Third Century Project uses an IBM-PC or a Zenith. Any additional equipment will be fully compatible, you can be sure.

I hope that you will advertise the availability of data on diskettes. More persons need to take a look at some of the information that you collect.

Thank you for making the materials I have needed available both in hard copy and on diskettes.

Yours sincerely,

Dolph

Jame A. (Dolph) Norton
Director